

REMARKS/ARGUMENTS

The Examiner is thanked for the performance of a thorough search.

By this amendment, Claims 47, 50, and 53-60 are amended and no claims are added or cancelled. Hence, Claims 45-60 are pending in the application.

I. SUMMARY OF THE REJECTIONS/OBJECTIONS

The Office Action on page 2 reminded the Applicants to update the blank spaces in the specification that indicate U.S. Patent Application Serial Nos. Although specification was amended in the first response (i.e., to the first Office Action) mailed on December 28, 2004, the specification is again amended herein include updated patent numbers.

Claims 47, 50, 55, and 58 stand rejected under 35 U.S.C. § 112(2) as allegedly being indefinite for reciting the phrase “may be” and “may not.” Claims 47 50, 55, and 58 are appropriately amended herein. Removal of the 35 U.S.C. § 112(2) rejection with respect to Claims 47, 50, 55, and 58 is therefore respectfully requested.

Claims 53-60 are rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Claims 53-60 are amended herein to recite a “computer-readable storage medium”, support for which term is found on page 11, line 27 of the specification. Lines 25-28 of page 11 clearly differentiate between (a) a computer-readable storage medium and (b) a transmission medium on which instructions may be embodied in a carrier wave. A storage medium inherently stores data (e.g., instructions) whereas a transmission media does not store data. Removal of the 35 U.S.C. § 101 rejection with respect to Claims 53-60 is therefore respectfully submitted.

Claims 45-60 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,185,601 issued to Wolff ("*Wolff*") in view of U.S. Patent No. 6,430,698 issued to Khalil et al. ("*Khalil*"). This rejection is respectfully traversed.

II. THE REJECTIONS BASED ON THE PRIOR ART

A. CLAIM 45

Claim 45 recites:

A machine-implemented method, comprising the steps of:
a service requestor using an Internet Protocol (IP) address to address requests to a service provided by a first node within a cluster, wherein said first node is configured to provide said service to requests addressed to said IP address;
in response to said first node becoming unavailable, automatically configuring a second node of the cluster to respond to requests addressed to said IP address;
after said first node becomes unavailable, the service requestor using said IP address to address a message to said cluster related to said service; and
in response to said message, said second node of the cluster sending a response that indicates an error condition. (emphasis added)

Wolff and *Khalil* fail, both individually and in combination, to teach or suggest at least the above-bolded features of Claim 45.

1. *Wolff fails to teach or suggest "in response to said first node becoming unavailable, automatically configuring a second node of the cluster to respond to requests"*

The Office Action cites col. 2, line 66 – col. 3 line 2 of *Wolff* for disclosing "in response to said first node becoming unavailable, automatically configuring a second node of the cluster to respond to requests" of Claim 45. This is incorrect. This portion of *Wolff* states:

In another embodiment of the invention, the method comprises the acts of: (1) sending an I/O request from at least one client to the first server node for at least one resource; (2) determining, an I/O failure of the first server node; and (3) redirecting subsequent requests from at least one client for at least one resource to another among the plurality of server nodes, in response to the determining act.

However, *Wolff* does not even suggest that a second server node is **configured**. Instead, *Wolff* teaches that subsequent requests are redirected from one client to another server node.

In reference to FIG. 9B, col. 27, lines 11-24 of *Wolff* states:

At time T=0, aware client 102A sends an I/O request 920 via node 3 for a file system 122B [on] memory resource 118B. **The absence of a response to that request, resulting from the failure of node 3, causes the aware client to obtain from its namespace an alternate node through which the file system may be accessed.** Node 4 appears in the configuration database as having a domain that overlaps with the domain of the file system. A server and a resource are said to be in the same domain space if the domain fields 440J-K (see FIG. 5B) for the resource record overlap with one of the domain members in fields 420G (see FIG. 5A) of the node/server record in the configuration database. Thus, **aware client 102A sends an I/O request 922 to node 4.** (emphasis added)

Claim 45 is directed towards an approach for providing a service to a service requestor in a manner such that the service requestor is quickly notified (i.e., does not have to wait for a time-out) when a node providing the service fails. However, *Wolff* suggests that a client waits to receive a time-out: the “absence of a response to that request, resulting from the failure of node 3, causes the aware client to obtain...an alternate node” (emphasis added). Furthermore, even if *Khalil* could be combined with *Wolff*, the combination still fails to even remotely suggest (either in cols. 2-3 or 27) the idea that a second node (e.g., node 4) is configured to respond to requests that are addressed to an address associated with a first node that became unavailable.

2. *Khalil fails to teach or suggest* “the service requestor using said IP address to address a message to said cluster related to said service”

The Office Action acknowledges that *Wolff* fails to disclose “the service requestor using said IP address to address a message to said cluster related to said service” as recited in Claim 45. The Office Action then contends that col. 8, lines 2-16 of *Khalil* discloses this feature of Claim 45 (page 6). This is also incorrect. This portion of *Khalil* merely teaches that each home agent 16 periodically sends a “heartbeat message” to other home agents 16 in the same home

link (i.e., the alleged cluster). There is no service being requested. Furthermore, because the set of home agents 16 are equated with the recited “cluster” of Claim 45, there is no entity in this portion of *Khalil* that can be equated to the recited “service requestor” of Claim 45.

3. *The Office Action improperly dissected the claimed invention into discreet elements*

The Office Action cites col. 2, line 66 to col. 3, line 2 of *Wolff* for disclosing “in response to said first node becoming unavailable, automatically configuring a second node of the cluster to respond to requests”, as recited in Claim 45. However, in quoting this step of Claim 45, the Office Action left out a key portion of the step, namely, “automatically configuring a second node of the cluster to respond to requests addressed to said IP address” (emphasis added).

35 U.S.C. § 103(a) states:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. (emphasis added)

Thus, as a matter of law, to present a prima facie case of obviousness under 35 U.S.C. § 103(a), the differences between the subject matter sought to be patented and the prior art must be such that the subject matter sought to be patented as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

The Patent Office has long recognized that a proper rejection based on 35 U.S.C. § 103(a) must allege that the subject matter sought to be patented as a whole must be disclosed or taught by the prior art. MPEP § 2106, II, C states:

[W]hen evaluating the scope of a claim, every limitation in the claim must be considered. Office personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, the claims as a whole must be considered. (emphasis in original)

Thus, to establish a prima facie case of obviousness as a matter of law, the claimed limitations, as a whole, must be alleged to be taught or suggested by the prior art. **Merely dissecting a claimed invention into discrete elements, and then evaluating the dissected elements in isolation fails to present a prime facie case of obviousness as a matter of law.**

With respect to Claim 45, the Office Action dissected an element of Claim 45 into two fragments. The Examiner then pointed out how each individual fragment corresponds to a similar fragment in one of two references. **The fragment-to-prior-art correlation appears to have been made without any consideration as to the relationship between the fragments, the meaning of the elements as a whole, and the meaning of the claim as a whole.** If rejecting a claim in this manner was proper, nearly every claim may be rejected since most claims use words or phrases found in other documents.

None of the cited references have been cited to disclose, teach, or suggest meaningful portions of subject matter recited in the independent claims. Instead, the Office Action dissected the claimed invention into discrete elements and then evaluated the dissected elements **in isolation**, rather than considering the elements as a whole.

For example, no cited reference is alleged to show the subject matter of “in response to said first node becoming unavailable, automatically configuring a second node of the cluster to respond to requests addressed to said IP address.” Instead:

- One portion of *Wolff* is cited to show “automatically configuring a second node of the cluster to respond to requests”,
- One portion of *Khalil* is cited to show “said IP address”,

The above dissected portions have been evaluated in isolation, and are divorced from their actual meaning given their placement in the claim. Even when combined in this way, *Wolff* and *Khalil* fail to teach or suggest that a second node of a cluster is configured to respond to requests that are addressed to an IP address that is associated with a first node that became unavailable.

Based on the foregoing, *Wolff* and *Khalil* fail to teach or suggest, either individually or in combination, all the features of Claim 45. Thus, Claim 45 is patentable over *Wolff* and *Khalil*. Removal of the 35 U.S.C. § 103(a) rejection with respect to Claim 45 is therefore respectfully requested.

B. CLAIM 53

Claim 53 is a computer-readable storage medium that carries instructions that, when executed, causes one or more processors to perform the steps recited in Claim 45. Accordingly, Claim 53 includes the features of Claim 45 that are patentable over *Wolff* and *Khalil*. Removal of the 35 U.S.C. § 103(a) rejection with respect to Claim 53 is therefore respectfully requested.

C. DEPENDENT CLAIMS

Claims 46-52 and 54-60 are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of Claims 46-52 and 54-60 is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of Claims 46-52 and 54-60 introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time, although the Applicants reserve the right to further point out the differences between the cited art and the novel features recited in the dependent claims.

III. CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,
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